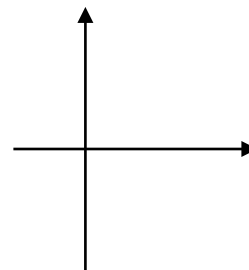
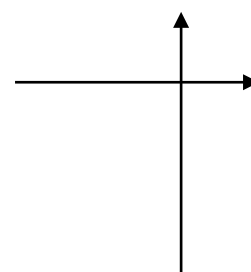


Find the volume of the region bounded by the given functions and revolved about the given axis.

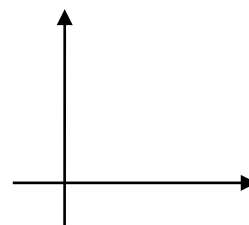
1.  $y = x^2 - 4x$ ;  $y = 0$  about the  $x$ -axis



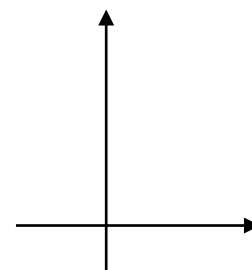
2.  $y = x^3$ ;  $x = -2$ ;  $y = 0$  about the  $x$ -axis



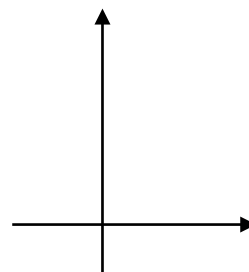
3.  $y = \sqrt{9 - x^2}$ ;  $y = 0$ ;  $x = 0$  about the  $x$ -axis



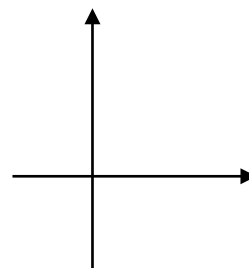
4.  $y = x$ ;  $y = 3$ ;  $x = 0$  about the  $y$ -axis



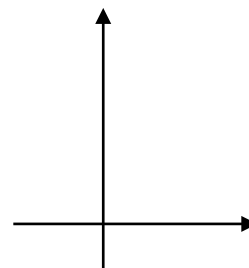
5.  $y = 2x ; y = 4x^2$  about the  $y$ -axis



6.  $y^2 = x ; 2y = x$  about the  $y$ -axis



7.  $y = 2x ; y = \frac{1}{8}x^3 ; x = 0, y = 0$  about the  $y$ -axis



8.  $y = x^2 ; y = x + 2 ; x = 0$  about the  $x$ -axis

